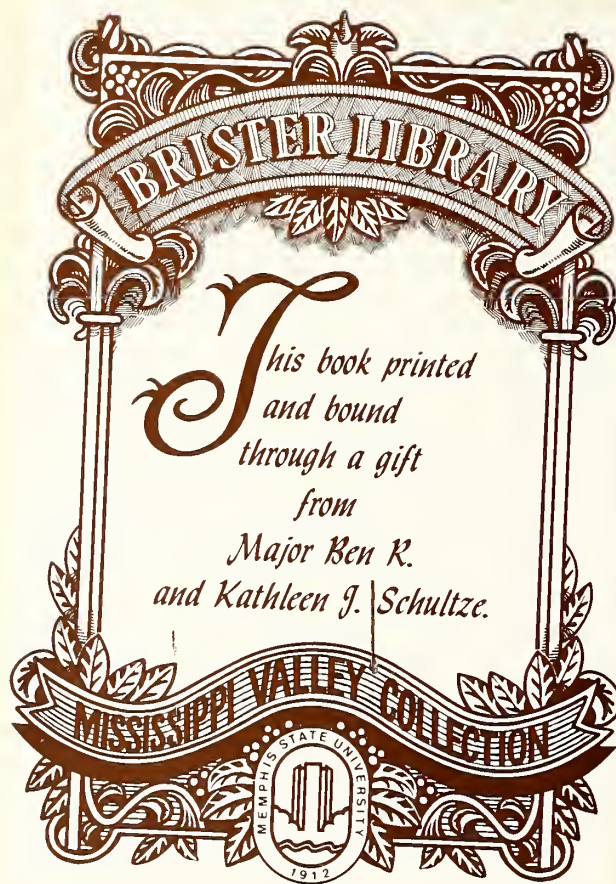


ORAL HISTORY OF THE
TENNESSEE VALLEY AUTHORITY
INTERVIEWS WITH
NAT CALDWELL

BY CHARLES W. CRAWFORD
TRANSCRIBER - BETTY WILLIAMS
ORAL HISTORY RESEARCH OFFICE
MEMPHIS STATE UNIVERSITY



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ORAL HISTORY OF THE TENNESSEE VALLEY AUTHORITY

INTERVIEWS WITH NAT CALDWELL

SEPTEMBER 30, 1979

BY CHARLES W. CRAWFORD

TRANSCRIBER - BETTY WILLIAMS

ORAL HISTORY RESEARCH OFFICE

MEMPHIS STATE UNIVERSITY

THIS IS A PROJECT OF THE ORAL HISOTRY RESEARCH OFFICE OF MEMPHIS STATE UNIVERSITY. THIS PROJECT IS "AN ORAL HISTORY OF THE TENNESSEE VALLEY AUTHORITY." THE INTERVIEW IS WITH MR. NAT CALDWELL. THE PLACE IS NASHVILLE, TENNESSEE. THE DATE IS SEPTEMBER 30, 1979. THE INTERVIEW IS BY DR. CHARLES W. CRAWFORD, DIRECTOR OF THE MEMPHIS STATE UNIVERSITY ORAL HISTORY RESEARCH OFFICE, AND WAS TRANSCRIBED BY BETTY WILLIAMS.

INTERVIEW # I.

DR. CRAWFORD: Mr. Caldwell, to begin with, could we get a little background about yourself and how you happened to get into journalism to the point that you were covering TVA?

MR. CALDWELL: I grew up in Lakeland, Florida. My father was a mechanical engineer and moved with me and my little brother to Lakeland after his health broke. He lived till I was 10 years old. Then I had a mother who was (I didn't know it) a very well-to-do woman. I thought she was poverty-stricken. It was my job to support the family. I worked during the Florida boom on the Lakeland Evening Ledger as a solicitor of circulation.

DR. CRAWFORD: How old were you when you started that work, sir?

MR. CALDWELL: Ten years old.

DR. CRAWFORD: At the age of ten! What year was that, Mr. Caldwell?

MR. CALDWELL: I was born in 1912. I was circulation soli-

citor and I had five paper routes. I was in Florida all during the boom and sold extra papers of the Lakeland Evening Ledger. "Two Thousand Die in Miami Storm" (was the headline) on the night that the boom busted with the big storm down there in 1926. I took up nearly \$500.00 in tips. It was the last of the boom money in Florida.

DR. CRAWFORD: You were about fourteen then?

MR. CALDWELL: Yes. I had been, during the last working year before the boom broke, or appeared to be making or earning at least \$400.00 a month. Often more than that. I had a bunch of odd jobs. I sold hair straighteners, a line of cosmetics to blacks, delivered newspapers and sold newspapers as a street salesman, I solicited for newspapers at night. At night, I did a trick as a masseuse in a Swedish Massage Parlor because the massage parlor in those days wasn't like it is now. You actually would go to a massage parlor to get the soreness rubbed out of you like you would go to a chiropractor or something like that. The pay was \$8.05 an hour. I was 6 ft. and one inch tall and weighed 105 lbs. But the woman who rented the apartment from us said to my mother that she could make me more money than I could ever make as a salesman or a reporter.

I wound up that period of seeing the boom bust--one night everybody was rich in Florida. That was four years before the big crash hit the rest of the country. Everybody was millionaires. People were paying me \$500.00 in tips--selling papers in front of the biggest church in Lakeland. It was the First Presbyterian Church. And I wound up with a bad taste for the morals of capitalism that remained in my life ever since. I have

never hesitated (which is an exceptional thing as newspaper reporters go) to remark if anybody could pin me down about what my political views were and that included a number of very capitalistic publishers and owners of the Tennessean and other newspapers and certainly some colleagues who made the most of my political confessions--which I didn't consider confessions--that I was a socialist. The only reason that I did much better financially than most newspaper reporters is because of the privations that I endured for the next four years and for the four years after that as a kid living through first, the Florida depression and then coming back to Tennessee and living through the Tennessee depression. I knew you had to save money. I knew you had to invest it and I became a little bit more adept. (I) never made anything more than the usual newspaper reporter's salary, but I always saved and invested my money better than most of them did and when I get ready to cash out my chips I will leave a much larger estate than most people leave who go and work for the New York Times. That is simply a happenstance. My political beliefs however, are the opposite direction.

DR. CRAWFORD: What did you do during the four years, say, of the Florida depression from '26 to when you left there?

MR. CALDWELL: What I did is to work with about eighteen kids in a little company I organized. It was a citrus fruit tree trimming, spraying, and fertilizing service. You didn't need to cultivate citrus trees very extensively. I hired kid labor and paid them fifty and sixty cents a day. Lots of those kids had been

kids before the boom busted who had their own automobiles. And I always took a skim off the top. I did pretty well. [I] saved enough money for my first year's tuition to go to college. I got back to Tennessee where my family had been raised in Gibson County in West Tennessee and, lo and behold, Tom Halford's bank busted right out from under me before I could even get to school.

DR. CRAWFORD: Did you have money in the bank?

MR. CALDWELL: Oh yes! Sure. Five banks broke from under me. As I say, that is what made me feel somewhat that whatever the system was, whether I liked it or not, I was going to play it by the rules in my favor. So I became pretty successful--a real estate investor. Is this more than you need?

DR. CRAWFORD: No sir, I need this background. What year did you come to Tennessee?

MR. CALDWELL: I came back to Tennessee in 1930. I got back here when school got out in Florida in May. I got back here in June and the bank busted in West Tennessee. I got down to Memphis with very little money to start as a freshman at Southwestern. My mother got me a grant or scholarship or something as a potential ministerial student. I had Robert Penn Warren as a freshman English teacher, which wasn't bad!

DR. CRAWFORD: Was that about 1930?

MR. CALDWELL: U-huh.

DR. CRAWFORD: He was there a short time, wasn't he?

MR. CALDWELL: Yeah.

DR. CRAWFORD: How long were you at Southwestern?

MR. CALDWELL: One year. Then I went back to college nine years ago. I've been going ever since.

DR. CRAWFORD: When you left Southwestern, where did you go?

MR. CALDWELL: I went to the Trenton, Tennessee Herald Democrat. I worked in circulation on The Press Scimitar and The Commercial Appeal in Memphis. I was a good salesman and a good circulation solicitor.

DR. CRAWFORD: While you were at Southwestern?

MR. CALDWELL: Uh huh.

DR. CRAWFORD: So you were in Memphis about a year?

MR. CALDWELL: Uh huh. I was there. I was out of school. I had no money to go to school.

DR. CRAWFORD: What year did you go to Trenton, then?

MR. CALDWELL: 1931. I stayed there till 1934 working on the Trenton Herald Democrat which was the liveliest of the weekly newspapers in West Tennessee. It started its own daily paper because my particular boss was a very bright man and realized that you didn't pick the only national advertising going in a weekly paper, but you could get the ads if you ran a daily paper. So we printed 400 Trenton Daily Bulletins every afternoon--400--and he swore to a circulation of about 1800 a day. We made it pretty well.

DR. CRAWFORD: In that early depression, sir?

MR. CALDWELL: Yes sir. So I was almost a daily newspaper reporter when I went to Lebanon to law school where my two great grandfathers who had been very successful lawyers

and politicians and law teachers had gone. One of them was an author--
Tennessee history.

DR. CRAWFORD: What did he write, sir?

MR. CALDWELL: He wrote, Sparks from a Backlog. He was
Nathan Green, Sr., and was one of the found-
ers of Cumberland University Law School. It was a one year law school.
He also wrote The Tall Man of Wind Grove, and they were both very thinly
disguised, slightly fictionalized sets of reminiscences about the morals
and events of the times. His son, Nathan Green, Jr., then became a pro-
fessor in the law school. They kept the law school alive until an old
man named Chambers took over about 1928 or '29. I went out there and
stayed four and a half months in law school and came over here and got a
job at the Tennessean full time at five bucks a week.

DR. CRAWFORD: Was that 1934?

MR. CALDWELL: Nineteen thirty-four shortly after Colonel
Lea lost the newspaper into general bank-
ruptcy. I was a combination office boy and reporter for the first three
years that I worked there. Of course, the newspaper about three weeks
before I came, had gone under a receivership.

DR. CRAWFORD: Who was the editor then?

MR. CALDWELL: The editor was Jack Nye, and Bob Ryelick
was the associate editor and the real edi-
tor was the publisher, Colonel Luke Lea, who was preparing to go to
prison in North Carolina for stock and bond fraud. He owned The Tennessean,
The Commercial Appeal, and the Knoxville Journal, and the Atlanta Constitution.

And he had purchased less than two weeks before the paper went under (he and Rogers Caldwell) had bought the Montgomery, Alabama Advertiser and one of the Birmingham papers, I don't remember which one. He never took ownership of them. He ran the Constitution, Commercial Appeal, The Journal, and The Tennessean.

DR. CRAWFORD: He had trouble when the Rogers Caldwell banking empire

MR. CALDWELL: He was Rogers Caldwell's business and political partner. He was the political arm of Caldwell & Company. And he was much riskier financially than Rogers Caldwell. Caldwell was a businessman and listened to everything his lawyers told him to do and Colonel Lea was a plunger. He had tried during World War I, among his interests and adventures, to kidnap the Kaiser if you remember. Roger Butterfield wrote a very intriguing story in the Saturday Evening Post about that.

DR. CRAWFORD: There was something also published in one of the historical society papers a number of years ago about that.

MR. CALDWELL: Uh huh. Colonel Lea was the son-in-law of the founder of the Tennessee Electric Power Company, Mr. Percy Long. He bought about 38 little municipally-owned power plants, very few of which had a steam generator, most of which were furnished with electricity by a small dam.

I went up to McMinnville the other day to start with, ironically enough, the Corps of Engineers because it wasn't big enough to interest the

three current board members of TVA. The mayor had already appealed to the TVA to come in, but it was a little tiny dam built there by the town in 1908. A generator had been placed in the dam of just 250 watts--just enough for lights for the little town of McMinnville for years. Then, of course, a group of local investors including a coal mine operator, had already started construction of the dam at Great Falls on the Caney Fork, which is Rock Island Dam today. When TVA bought Rock Island Dam, I think they assigned the value to it of not more than five million dollars on the total purchase, but Rock Island Dam supplied much of TVA's power. They got about three little bitty, tiny dams like this City Park Dam. That's what they call the dam in McMinnville now. Of course, what the mayor wants to do is cut down the town's street lighting bill and either be a co-generator for TVA or to use the waterfall. The generator has long since been removed--scraped--and put a new generator in that dam.

DR. CRAWFORD:

I believe there will be increasing attention given to those little dams that before were not economical.

MR. CALDWELL:

Much, and I'll tell you why. I talked to an engineer for Southern California Edison who is retired and lives at Fayetteville. He has looked at two of those old dams down there and he said about twenty years ago when the environmentalists first became powerful in California and got in behind their larger established dams they provided that they put a small opening at the foot of the toe of each one of those dams to maintain a suitable low of water even when they were holding back everything they could during dry periods



for fire generations or for water supply. Because California has always been a water supply dam. They made them bleed out of the bottom of the dam a certain amount of water. Well, later on that became a part of everybody's requirement, long before the general environmental laws were passed. So that Allis-Chalmers and, oh What is the ship building company at Newport News, Virginia? Oh, what is it?

DR. CRAWFORD: That's not Ingalls, is it?

MR. CALDWELL: No, no that's not Ingalls. Anyhow, that ship builder turned out a line and kept in stock tiny little generators from ten kilowatts to say, 650 kilowatts, that you could just order out of stock and has done that for years because they do keep them in stock. You can get one very inexpensively. If you happen to have a farm and put a respectable size dam in there now, and put a penstock in there you probably have your own light bill paid and sell that electricity back to the rural electric co-ops that served you for a little extra money because it wouldn't cost you but a few thousand dollars to buy one of those little bitty generators. They are bigger than the old Delco that the farmer used to have on his own farm. And that is one of the ways we are going to get out of the bind that we are in now. We are going to have thousands and thousands and thousands of those. And another thing you are going to do if you are a farmer: any corn that is spoiled just a little bit now you deliberately screen that out of livestock food because you don't want to lose a valuable cow or pig or high-priced livestock feeding them slightly molded foods. There isn't a thing in the world wrong with you putting that in a vat, my friend, and fermenting it



and making your table supply of liquor but. . . .

DR. CRAWFORD: Gasohol.

MR. CALDWELL: Yes, sir! Making your gasohol! For pity's sake and getting a very high efficiency off of your automobile. That's another thing you are going to be doing. You can be a tetotaler and still make your own out of whatever grain happens to be available. And there is always around every farm, if you feed much livestock, there's always enough spoilage of grain that you are going to make a very respectable supplement to your gasoline supply by accident.

DR. CRAWFORD: How do you think the oil companies will react to that?

MR. CALDWELL: The oil companies are going to react adversely to everything. But this country, Charles, is of a much less favorable disposition to the oil companies than it was when the federal judges broke up the Standard Oil Company Empire. They were mad then (farmers were) about paying too high price for kerosene, to the Standard Oil Company. Right now the pollsters do not pursue questions like this. If you narrow down--you are for free enterprise, you're for this and you're for that, you're for the other, if you want to load your question, and I've done it over and over again about the oil companies--What do you think they've done to get us in this shape? Do you think the Arabs and the OPEC countries act like they are prodding us or have tricked us? Houston, Texas--Do you think these things are run at Beirut, at the different capitals of the Arab emirates and places like that? Hell no, they'll tell you they are run at Houston and they don't

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like it worth a damn. There will be because they have never been very wise.

They took a major beating on some anti-trust legislation when Estes Kefauver (that was not a terribly radical period) in the history of American government. That was when they had a sig strong dose of major oil companies.

DR. CRAWFORD: In the Eisenhower era?

MR. CALDWELL: Yes, sure. Then Estes Kefauver managed to put teeth in our anti-trust laws right then.

As one of my TVA exposés I got after TVA about its coal buying policies and the early strip-mining activities which TVA seriously encouraged. If you remember we got into the United Mine Workers' Union, got up the money for a lawsuit against the United Mine Workers' Union for anti-trust activities. I helped to make a multi-millionaire out of a bright young lawyer in Knoxville. They got the money for his first two or three trips to the United States Supreme Court the three times, but when he had finished he had won 83 million dollars of anti-trust judgments against the United Mine Workers' Union.

DR. CRAWFORD: Who was that?

MR. CALDWELL: That was John Roundtree who was the biggest single stockholder of this Hamilton National Bank of Knoxville when Jake Butcher bought it out, if you remember. John was a very poor young lawyer. He had two rich uncles who were the bank's lawyers. John took those cases on a percentage basis and he won every one of them after going all the way to the Supreme Court twice. And the last



judgment was not just a judgment against the United Mine Workers' only, but was a judgment against United Mine Workers' and Continental Oil Company, which has since bought Consolidated Coal Company. My feeling about this is the more the oil companies of this country insist upon the full measure of their profits they are going to have to impose bigger self-restraints on themselves--which they have never done.

DR. CRAWFORD: It is contrary to their nature.

MR. CALDWELL: It is contrary to their nature, and there is nobody on the political horizon who speaks very strongly as Estes Kefauver did a few years ago. Kefauver had a number of supporters among big independent oil companies, but all the majors were his enemies. And he was elected and made an awful strong run at the Presidency for a couple of times. Mr Evans, the owner of The Tennessean, national and his principal persistent financial supporter and policy advisor, never told him to go easy on the major oil companies because he was a Texan and knew how strongly the latent public feelings of the last residual of the old populism in this country is in real hatred of the major oil companies, in my opinion.

Twenty years ago when I was getting up these lawsuits against John L. Lewis, I took on John L. Lewis personally. I took on personally a man who later on became chief justice of the United States Supreme Court, Abe Fortas. He was Cyrus Eaton, you know who Cyrus Eaton was. He was one of the big investment bankers in the country and Mr. Lewis's agent. And four or five years they just called me a liar about the stories I wrote in The Tennessean about the Union's money being taken to buy coal mines with--just a



flat liar! And Abe Fortas, who Johnson appointed to the Supreme Court and then appointed Chief Justice and then had to fire, wrote a letter down here to Mr. Evans and another one to Kohler Hollis and said that I was insane. Simply fabricating them!

DR. CRAWFORD: Was Fortas an attorney for them?

MR. CALDWELL: Fortas was Mr. Eaton's personal lawyer and the Union had separate counsel but he was also John L. Lewis's personal lawyer. And if you will remember, I got my Pulitzer Prize writing about that thing and for five long years everybody would say it was a lie! And the New York Times sent reporters down here behind me and investigated me. Now let me tell you how. I knew I was safe. I knew I was safe because I had in Mr. Evans' office copies of both sides of the cancelled checks that paid for those coal mines, but I had made a slight agreement with Justin Potter who was the big seller. Then Mr. Potter arranged--you know who Mr. Justin Potter is--his estate has now long since displaced the Vanderbilts as the big contributors to Vanderbilt University; they are new contributors--he left an estate of about 200 or 300 million dollars and was a principal stock holder of Virginia-Carolina Chemical Company. The coal companies that he sold for the United Mine Workers' were resold by the United Mine Workers' to Armand Hammer and became the Island Creek Coal Company. Mr. Lewis, instead of flatly denying that he bought those coal companies with Union funds, should have said, "Yes, and when I sell them I am going to make a good profit out of it."

DR. CRAWFORD: But he denied it, didn't he?

MR. CALDWELL: But he denied it for this reason. Because

he caught an industry that was poorly financed, that lacked the imagination and the finances to mechanize. If you remember at that period, coal was a poor competitor and was surrendering half the customers it had had among the power companies supplying them with fuel to nitro-gas companies and coal companies. That's when we were making the final dive into getting away from coal and doing that in the name of avoiding air pollutions. It made smog and smoke in the city. Incidentally, TVA at my insistence was named as the co-defendant in the first of those anti-trust lawsuits.

DR. CRAWFORD: What year was that settled?

MR. CALDWELL: The last of the lawsuits wasn't won until 1968, but after the first two trips up to the Supreme Court of the United States it was no question but what the rest of them were: The Union was going to settle or they were going to go through perfunctory trials hoping that they'd influence the jury to reduce the damages. They wanted to get as far away as they could from those triple damages. These were not criminal anti-trust lawsuits; these were triple damages of several anti-trust lawsuits, and they cost the Union a huge amount of money. There were 33 million dollars of Union money invested and who know how much more they took out of the treasury of the richest union in the business.

DR. CRAWFORD: Is that what won the Pulitzer Prize?

MR. CALDWELL: Yes.

DR. CRAWFORD: What year was the first Supreme Court decision in your favor?

MR. CALDWELL: The first Supreme Court decision in my

favor was in '60. I was never a party to any of the lawsuits. I was hustling up those lawsuits and my small coal mine operators to get them into John Roundtree's office. I sent some of them to Howard Baker's here. But I considered them my lawsuits because a good deal of my material was used as evidence and, of course, after they were no longer in controversy there was no point in not making all these check stubs public. When we let everybody know about them, the Union was in their convention of 1961 at Cincinnati. John Owens, the general secretary of the United Mine Workers' Union says, "As everybody has known inside the United Mine Workers' Union for the last ten years, Mr. Lewis has been investing your money in the purchase of coal mines." "And investments run," and he called off a long list. Lewis Stark was covering the convention. I was covering it for The Tennessean. Louis Stark was their big labor reporter, and three or four other big labor reporters. And they said, "Caldwell, my God, this is validating all of your news stories!" Sitting up there in Cincinnati, and he read them off just as matter of factly and somebody made a motion that the report of the General Secretary be accepted.

DR. CRAWFORD: About what year was that?

MR. CALDWELL: I think that was '61. I got the Pulitzer Prize in '62.

TVA, because it was buying coal, sold extremely cheaply, playing union against non-union mine, playing strip-mine against underground mine, playing absolute distain for the basic design of their steam boilers. Most of the problems with the steam boilers in the real cold winters that we had the last three years

(continued on page 16)

of Red Wagner's tenure as Board Chairman of TVA, Charlie, was because those damn boilers had been designed for pretty good coal. What they were burning in those boilers in order to beat the price of coal down, was high grade dirt, practically. And they did this. And, of course, Red had already made up his mind then, that he was going nuclear anyhow. He didn't give a d. . . They made no effort to maintain, or to keep them fixed up or anything else. The grates fell out of them. One of the big generators at Gallatin, if you remember, just exploded. And like good government employees are, it was five minutes before the shift changed and there was not a soul in sight of that damn plant. So when 230 tons of shrapnel went in all directions nobody even lost his glasses from breakage!

DR. CRAWFORD: Thank goodness. (Laughter)

MR. CALDWELL: Just the sheerest accident that nobody was hurt at all! There were places where huge things went through a steel roof. Just like it had been a bomb bursting through there, but there wasn't a soul within at least 500 yards of that plant because everybody was dogging it for some reason. They were fixing to have some union negotiations and the shift coming on was going to be late getting on and the shift leaving left early so nobody got hurt.

DR. CRAWFORD: They missed a real tragedy.

MR. CALDWELL: Yes. Sure they did.

DR. CRAWFORD: Now was that because of burning low grade coal?

MR. CALDWELL: Yes. Westinghouse didn't have to pay a penny to rebuild that boiler.

DR. CRAWFORD: Because of what they had been burning?

MR. CALDWELL: That's right. The only place where they tried to keep up (and this I am scooping myself, but you are not planning to make any immediate use of this). The only place where they made any attempt to keep up the quality of the coal burned was at the newest steam plant and that is the biggest of the coal burning plants. The size of the generators was one million, three hundred thousand kilowatts in each one of the two generators at Cumberland City. They did make an effort, but unfortunately, a good portion of the plant there was put together by Babcock and Wilcox who they had kept dealing with although they designed and built the Three Mile Island Plant, although they designed and built the first pressure vessels down here at Browns Ferry which had to be detached, taken off the site and shipped to Japan to be retooled!

DR. CRAWFORD: Why Japan?

MR. CALDWELL: Because no American manufacturer wanted to fool with it. Babcock and Wilcox said, "Just sue us. It's not our fault, you can just sue us." They had a whole lot of nuclear works scheduled. They got in on the nuclear ground floor early and they got in as a sub-contractor for a much larger contractor, General Electric. General Electric had the prime contract, but they had the pressure vessels. So they weren't going to take back and rework their own and they finally got a Japanese turbine and boiler manufacturer and had to ship that thing by ocean-going barge all the way to Japan and back to get it redone and put in. Of course, Browns Ferry wound up going on the

line about four years late. They just had one headache one right after another.

DR. CRAWFORD: Let's get back to 1934, when you came to the Tennessean. What was your main responsibility?

MR. CALDWELL: My main responsibility as a young reporter and office boy was covering the new alphabet agencies as they developed. And on TVA I was the assistant of Jennings Perry who wrote Democracy Begins at Home on poll tax. He was an associate editor of the Tennessean. He was a novelist. He wrote The Windy Hill, a novel about Jackson. He wrote a couple of other novels about West Tennessee and was a contemporary of Hemingway.

DR. CRAWFORD: He had been in Paris, I believe?

MR. CALDWELL: He had been in Paris.

DR. CRAWFORD: In the twenties, I believe he got his inspiration for The Windy Hill from the first line of one of Rupert Brooke's sonnets.

MR. CALDWELL: Yeah. And an extremely bright, charming man and I followed him around as sword carrier during all those early years.

DR. CRAWFORD: What did you know about TVA when you started covering it with Jennings Perry?

MR. CALDWELL: Now, what I knew about TVA is what I had seen. I wrote a story in the Tennessean

last Sunday a week ago in the "B" section about the two Dr. Morgans coming to an agricultural community in Gibson County and dedicating one of their early test demonstration farms. And if you were agriculturally oriented, what you knew about TVA is this: That Arthur Morgan had a study made, which you can't find because it has been destroyed and removed. I have looked through that library; I did it again when Dave Freeman came down there. There was a study made at the request of Dr. Arthur Morgan which recommended practically that West Tennessee be turned back to the Indians and rebought.

DR. CRAWFORD: Is there a possibility that report had a copy kept at Antioch College?

MR. CALDWELL: Yes, there is. There is certainly a possibility. Until he was with McKellar, Ed Crump was a strong supporter of Dr. Morgan's. McKellar was always against Dr. Morgan because he paid for that report. And it just recommended that they practically do away with West Tennessee. The only towns to be spared were: Jackson, Dyersburg, Union City, Paris and one other town and the rest of it was to be a big reforested lumber area with no agriculture in it because it was washing away so bad.

DR. CRAWFORD: What was to be the fate of Memphis according to that report?

MR. CALDWELL: The fate of Memphis was to be what it was.

the center of the tri-county area. TVA had no responsibilities until 1939 for the northwest Mississippi area. That was still under private power companies and had none at all across the river in Arkansas. Although everybody knows, and many political writers wrote, and Tom Stokes wrote a series in the Scrips-Howard newspapers, that as late as eight months before Senator Norris's final draft of the TVA bill was cleared by the Senate Ways and Means and Senate Finance Committee Roosevelt called Joseph Robinson, whose law firm represented Arkansas Power and Light, and said, "Joe, I had just as soon put George Norris's TVA on the Arkansas White [River] if you want it". Well, this young law partner, Ham Moses. . . .

DR. CRAWFORD: Yes, who was later President of Arkansas Power and Light.

MR. CALDWELL: . . . heard that. He--oh, he was upset! Harvey Couch, who owned the company that later on became Mid-South Utilities, Arkansas Power and Light, one of the Mississippi Power and Light companies, New Orleans Public Service Company and another one that was in Oklahoma and Arkansas and the Cotton Belt Railroad--he liked it.

DR. CRAWFORD: Why did he like it?

MR. CALDWELL: Because he wanted to get his money out of there and he thought the future of the Southwest was in oil and gas.

DR. CRAWFORD: He would have been willing to sell as Wendell Willkie did then, his Commonwealth and Southern.

MR. CALDWELL: Much more willing than Wendell Willkie was because he was in worse shape than Wendell Willkie was. Wendell Willkie had cleaned up Commonwealth and Southern. Commonwealth and Southern never had been in the bad mess that the other big power companies had been in. They never had been in that kind of a mess. And Willkie did a good job of cleaning that up.

DR. CRAWFORD: So it was in fairly good shape.

MR. CALDWELL: It was in pretty good shape. It sure was and they were fixing to build some new steam plants. They had a new steam plant planned for the Nashville area and had bought a site right out here at Royal Oaks for a sizable new steam electric plant.

DR. CRAWFORD: Are you sure they were willing to sell?
What about Harvey Couch?

MR. CALDWELL: No, no, no. Commonwealth and Southern didn't want to sell. No, they didn't want to sell. They couldn't have lived in pride that they had to be forced to sell. But Harvey Couch personally, who was the Board Chairman of Arkansas Power and Light Company did, if he could have gotten by with it. But Ham Moses was so eloquent that he stirred up the whole utility industry and everybody else against Roosevelt moving TVA. You see, Norris had passed twice before and Hoover had twice vetoed or Hoover had vetoed once and Coolidge, I forget which had vetoed the TVA law, and the only TVA that George Norris ever had any heart or mind for was on the Tennessee River.

DR. CRAWFORD: Muscle Shoals?

MR. CALDWELL: Yes. Yes. And what Norris intended is the Muscle Shoals Nitrates Plant. And the holdings that he insisted that TVA acquire in the beginning and Dr. Arthur Morgan and Harcourt Morgan wanted to do that--all the phosphate in Tennessee and he wanted to buy all the phosphate in Florida that they could get. The real high grade phosphate to make most of the fertilizer for all of the small farmers in the United States. He wasn't just thinking about TVA as doing research; he was thinking about TVA supplying this country's supply of fertilizer to all except large farmers, and had legislation that could have passed. Roosevelt didn't want that. Roosevelt was no part of the socialist; Norris was. Mrs. Roosevelt was. Rex Tugwell was.

Let me bring you into another phase. Dave Lilienthal came down here, after a fight as chairman of the LaFollette's Wisconsin Public Service Commission and then as a young aggressive--very aggressive Jewish lawyer tear-into what was left of the Insull Empire as it went down the drain. He had a feeling that in an underdeveloped area like the South the quick route to regional development would be through cheap electricity. He had seen enough of the mismanagement of the Insull Empire and the misbehavior and the bribery of public officials and everything like that that he knew what a clean and honest operation could do. And he couldn't have cared less about the agricultural purposes. The defense and the Eighteen Power Companies' case and the Aswander case and the other basic lawsuits that they gave--that the power was to be an Insull area indirect part of the thing was simply because the law was written that way. George Norris was not thinking about a big power empire, the biggest power generating and distributive system in the world

or even an awful lot about the rates for electricity, he was thinking about manufacturing a supply of cheap, high grade fertilizer. George Norris had been a successful farmer himself. And his family were all successful farmers. He believed that the fertilizer industry all over the United States, like all the other populace did, had bagged up a little bit of plant food with an awful lot of dirt and put it on railroad cars and charged you a haul bill plus the fertilizer bill for the dirt and shipped it all over the country. He knew that the basic nitrate could be taken out of the air down there with cheap electricity at Muscle Shoals. Norris never did--during the years that it operated--Norris never really made any effort--harsh effort--to get that power resource away from Alabama Power Company, which was the only customer they had down there.

If Henry Ford had been half-way decent about his proposal that the Ford Motor Company would make fertilizer, George Norris would have dealt with him. But he was very disappointed at the perfidy of Henry Ford. What they argued about was whether Ford should make a profit with 11 or 12% or a profit of 2 1/2% on the fertilizer. George Norris would have probably sold out on the basis. Then after he had gotten deeply into the TNEC Committee in which he was one of the principal figures along with Hiram Johnson and Lafollette and two or three other senators, he decided that contemporary big business--capitalism--in the country was so damn corrupt that you just couldn't trust anything to them. So he wanted TVA to make all the fertilizer.

But when he went up to see Norris Dam dedicated, he went over to TVA's nursery where they were up to doing what Nat Caldwell is still writing

stories about--the first of their research into the improvement of Hard-woods into super-tree species. That was what he was deeply interested in. He was interested in soil reclamation and things up around Norris. That was his thinking when Dave Lilienthal was down here. He told me that it was very difficult for him to get Senator Norris deeply interested in any phase of the power program except in the rural electric co-op part of it. Eventually Norris decided that Dr. Arthur Morgan had become so prejudiced that he misrepresented him against Mr. Lilienthal and became a complete Lilienthal partisan.

DR. CRAWFORD: What was it that Norris thought about
 Arthur Morgan?

MR. CALDWELL:

He thought he was the greatest man in the world. So did Mrs. Roosevelt think he's the greatest man in the world. So did Rex Tugwell think he was the greatest man in the world.

DR. CRAWFORD: At first?

MR. CALDWELL: Yeah. What I was going . . . one of the
first stories, and I didn't write a line
about this one. I took it over the telephone from Bill Piggs, who was our
reporter on the spot **in** 1935.

DR. CRAWFORD: How do you spell his name, sir?

MR. CALDWELL: Who? He's dead. He was a Hearst reporter later, City Editor of the Los Angeles

Examiner. Tennessean staffer. At Wilder, Tennessee, the two coal mine operators that gave me the money to pay John Roundtree his first advance

to take one of these first lawsuits up to the Supreme Court operated Fentress Coal and Coke Company at Wilder. There was a strike there against Fentress Coal and Coke, Scottish Potteries, and two or three other companies. Mr. Justin Potter and Mr. John Amis, I guess, hired at least fifty gunmen up there to offset the killers that they claim were in the UMW organized force. Roosevelt sent Mrs. Roosevelt and Mrs. Arthur Morgan. This was well before construction was advanced--oh, more than a year on Norris Dam--to Wilder because there had been, I think, 18 or 19 men, women and children shot at up there over a 3 year period of time. The Union had dynamited a train. The companies that weren't owned by Amis and Potter were owned by a Welsh mining concern, and two or three Scotch mining concerns. The Scotch mine managers were in there with shot guns and pistols and everything. The National [Guard] had already been called out two or three times and Mrs. Roosevelt and Mrs. Morgan got in a Hupmobile touring car with a couple of secret service people and went and stayed. I listened to a long story from John Amis about how hospitable they were up at Wilder and that they never believed a word they said.

DR. CRAWFORD: Now, Mrs. Roosevelt and Mrs. Morgan stayed . . .

MR. CALDWELL: Stayed up there three days

DR. CRAWFORD: And they didn't believe what the mine owners said?

MR. CALDWELL: Not a word. Not a word. They saw the positive talk to the mine owners and when she [Mrs. Roosevelt] went back to Washington, she called for Rex Tugwell, who was already encountering serious trouble in the U. S. D. A. even though his boss was Henry Wallace, to look after it.

From that was born Cumberland Homesteads, which was started out not as a Department of Agriculture project but as a TVA project. And they moved the first three hundred coal miners in TVA trucks right off the job at Norris. They just damn near suspended the job--everybody was union there. They were sympathizers and they asked for volunteers and they just took those construction trucks and moved those people, their property, their hogs, and whatever else they had to move, down to Cumberland Homesteads.

DR. CRAWFORD: What was Cumberland Homesteads?

MR. CALDWELL: Cumberland Homesteads was the Tennessee Valley Authority. And original deeds were taken in the name of the Tennessee Valley Authority. It later became Subsistence Homesteads of the United States. It later became the Subsistence Homestead Division of the Rural Resettlement Administration. Tugwell planned a socialistic village with political education. Tugwell sent his own daughter down there to live. And they ran her out on the grounds that she got pregnant, which wasn't true, but it frightened him and he was afraid she would get pregnant like some coal miner's daughter. They built those pink sandstone houses--they were the prettiest things you ever saw--down at

DR. CRAWFORD: And that was a resettlement?

MR. CALDWELL: That was the first--that was the prototype of all the resettlement projects in the United States.

DR. CRAWFORD: And they used the miners from the Coal Company for that?

MR. CALDWELL: Yes sir. And Edgar Snow and Nat Caldwell both will tell you (I've forgotten which one of Snow's books) but I read it when I was fixing to go as a ghost writer for an intelligence officer on a trip to Siberia they turned me loose in the Glenn Lyon Bldg. at Shanghai which was six weeks after the war. I stayed in as an enlisted for another six months so I would get the trip to Siberia. Both Mao and Ho Chi Minh took the U.S.A.'s resettlement problems--Subsistence Homestead problems--as their models.

DR. CRAWFORD: They were influenced by it?

MR. CALDWELL: And sent people over here during World War II to study resettlement problems. Orval Faubus' daddy. . . Orval Faubus was raised in one of the subsistence homesteads in Arkansas. Mena College was established over there as a part of one of the subsistence homesteads. Henry Wallace strongly approved. Mama Roosevelt made three trips down to Cumberland Homestead and would have eight, but it got to where it was a little too radical for her. They even did this up there. They experimented with diet change and there were some of the nutritionists for the Old Rural Resettlement Administration who thought that the diet of the ex-coal miners was entirely too high in pork and fat. They paid one group of the miners and their families to eat soybeans. That's vegetables, dried as nuts. Any damn way in the world you could think to cook soybeans. They were to use soy bean oil instead of lard. Once they signed contracts to do it they were paid like d---- near as much to eat soy beans to see what it did. They were weighed every day. It was a regimentation. And on that was based . . . (What in the h--- was Luis Munoz' marine suit . . . the first big reform project in Puerto Rico?)

DR. CRAWFORD: I don't know.

MR. CALDWELL: Tugwell designed it. Same crowd. Tugwell and a bunch of the early TVA red hots, three or four lawyers. Abe Fortas was a lawyer for the U.S. D. A. and innovator, who was the general counselor of the C.I.O." They gave him an awfully bad time before the Senator McCarthy Committee. All of those people helped design with Dr. Arthur Morgan the subsistence homesteads.

DR. CRAWFORD: The Cumberland Homesteads?

MR. CALDWELL: Not just Cumberland, but there were hundreds of those things [the subsistence homesteads] scattered from West Virginia all through the South. In Alabama, Jim Folsom was a product. George Wallace was a product. There are all sorts of distinguished southern politicians. In the extremes of politics you have one of these big homesteads you bought up, condemned, took the taxes off of something bought from the state governments, and set up these complete cooperative villages. The band wasn't just the farmer, he was a farmer, a factory worker, a Delta educated. Dr. Morgan was well into eugenic experiments in breeding this kind of hillbilly to that kind of hillbilly and getting married, of course, things like that.

DR. CRAWFORD: That has received very little publicity, you know.

MR. CALDWELL: That with the Vanderbilt thing. I tried and tried and tried. The Hearst newspapers just raised h--- about the first TVA seminar organized by George Fort Milton and

The Chattanooga Evening News. If you want to go in and sit down and go through the files of the Chattanooga News, they have not been thrown away and some of them are in the Chattanooga Public Library. You can get the news stories where all that sort of thing was discussed.

DR. CRAWFORD: Milton had a great interest in that.

MR. CALDWELL: Of course he did. Of course he did. And that was the reason that we were for TVA on the Tennessean, but we were never as strong for TVA as George Fort Milton and that was the reason. He was so far out, so far left, on the various social projects of Dr. Arthur Morgan that in a conservative town like Chattanooga they were able to just absolutely nearly destroy him [George Fort Milton] and ran his newspaper in the ground. When the groceryman decided to start the Chattanooga Free Press it was just a matter of time till they broke him. And he had to leave town and his mother and his wife, both pulled out with their financial support and he had divorced his wife, who his mother had sort of made a trustee for him, because she thought he was unsound of mind. And he and his second wife went to Buffalo and got a job with a friend of his who was not a political sympathizer, but who was a friend of his, as chief editorial writer of the old Buffalo Evening News, and just gave up and quit.

DR. CRAWFORD: I never knew what happened to George Fort Milton.

MR. CALDWELL: He died eventually. Jennings Perry, George Fort Milton, Nelson Pointer, who is the organizer of the Congressional Quarterly and also the publisher of the St. Petersburg Infinite, made a lot of money and were the journalistic political leftists of that period along with Tom Stokes, and Drew Pearson,

and Paul V. Anderson of the St. Louis Post Dispatch; and they were all close personal friends of (I'm not talking about the two LaFollette brothers) but I'm talking about their father, Bill LaFollette). He and the New Deal senators pulled a good deal over to the left of Roosevelt. Roosevelt--I don't think--oh, he wanted TVA to be a successful development scheme. He counted on Harcourt Morgan--who was a Canadian and not even a Tennessean, came down from Canada to be a reform director of Agricultural Extension, and Dean of Agriculture for the University of Tennessee, and later on became President [of U.T.]--to be the practical man in TVA. He thought Lilienthal was a dreamer and too far out.

DR. CRAWFORD: Now this is Roosevelt you are talking about?

MR. CALDWELL: Yeah, this is the old man himself. He thought [this of] Harcourt Morgan because he was a hard-headed Canadian and admired the business way of doing things. Of course, you realize this---who the owner of the Atlantic Coastline Railroads, that's Nashville, Chattanooga and St. Louis Railroads and the L & N Railroad was, don't you?

DR. CRAWFORD: No.

MR. CALDWELL: Mr. Delano, FDR's uncle.

DR. CRAWFORD: I didn't know that.

MR. CALDWELL: Oh yes. There was an awful lot of money that his mama had tied up in these railroads. And anything that happened was a gentle upbuilding of this railroad. What Roosevelt wanted was a successful boom down here and he, I don't think, Roosevelt ever did give much of a s--- about upsetting the

social structure except he was for getting the country going again and he was not a political theoretician or anything like that. He was sort of a boomer .

DR. CRAWFORD: Now, Arthur Morgan's ideas about reform of society and eugenic experiments and all of that are all the same thing?

MR. CALDWELL: He laughed at them behind their backs. Mrs. Roosevelt bought them hook, line and sinker. Mrs. Roosevelt was TVA down here. To these poor poeple and things like that she was TVA. And just like she was something else to somebody else. And, of course, she insisted that Madame Perkins', Secretary of Labor, be brought with her to Norris for the dedication of Norris Dam. At a sort of old timers' day they told about Mrs. Roosevelt putting a black woman in the big cement bucket that went across the dam for they loaded it with nine people: Senator Norris, Mrs. Roosevelt, the black woman, the construction superintendent, two or three representative workers. Those red-neck, hillbilly construction workers up there at Norris just were incensed about them putting a Negro woman in that G__ D__ thing. Some of them said they'd wished they had shot it down.

DR. CRAWFORD: That was not usual for Tennessee, then?

MR. CALDWELL: No, nor for the South either. Of course it wasn't. But Mrs. Roosevelt was after something like that all the time.

DR. CRAWFORD: Well, Mrs. Roosevelt was more interested in social reform than her husband.

MR. CALDWELL: Of course she was. Charlie, there's no question that the red-hots in the Roosevelt Administration had very little faith in the ability of the capitalist system to recoup at that period. They thought it was going on down the drain. They intended for TVA to be the sort of transition bearer from capitalistic government to socialistic government at least in the degree that you have socialist and co-op government in Norway and Sweden and Denmark.

DR. CRAWFORD: They saw TVA as an agency through which this could be . . .

MR. CALDWELL: Sure, would take place of course. I don't think there is any question in the world about that.

The people in TVA, the retirees in TVA, whom you talk to today who classified them selves as Arthur Morgan, at least a third of them would tell you that they were socialist in their political views. Norman Thomas when I interviewed [him]. Jennings didn't like Norman Thomas. He had a very unhappy interview with Norman Thomas when he was his writer for the New York Times. So when Thomas made his trip down here for the 1936 campaign, I believe, I talked with Thomas. Jennings didn't want to see him. And he says, "You know what Roosevelt has done? He's stolen everything from us, and if the chips are down, he's going to take TVA and make it the stepping stone to socialism in this country. And I intended for TVA to be just one of them. He's going to make it the main track." He was resentful. I think as Thomas got older he was more mellow. He thought an opportunity had been robbed, and he didn't appreciate it a d--- bit. And he said Roosevelt was an absolute phoney.

DR. CRAWFORD: And he thought that Roosevelt intended to use only TVA for social experiments. How far did Arthur Morgan get with his eugenic experiments?

MR. CALDWELL: He didn't get anywhere with it. The nearest thing he got was possible Cumberland Home-steads. Paying those people to eat soy beans! Now you can find that in TVA press files in the library. From the Crossville Chronicle and from other things that have been written up there. They are still intact. A lot of that library has been rifled. People have written books and graduate papers and everything else and stolen that damn stuff out of the TVA Technical Library. Incidentally, you are aware of this: Arthur Morgan lived until just a little over a year ago.

DR. CRAWFORD: Yes, sir. I interviewed him on his 91st birthday.

MR. CALDWELL: All right. Arthur lived and he came back [but] [TVA] and he never came back to the Valley. But [visited] when he went in that TVA Library and spent hours-- I've talked to the janitors over there-- hours at a time seeing what had been lost and he had a deep personal interest in the library. Dave Lilienthal never set foot in that damn TVA Library the whole time he was there.

DR. CRAWFORD: So the papers are incomplete that are in the TVA Technical Library?

MR. CALDWELL: Yes. I've got one that I am going to give you and I am going to call the librarian, but there's two copies of it. It's a compilation of the agencies, Lilienthal's

and other developers, but were copied on TVA around the world--little TVA's. I'm going to call them and mail it. You ought to have this at least to have it thermafaxed. One copy of it here and there used to be hundreds of copies of that damn thing. I think there is one in the Library of Congress in Washington and I know there is one down at the Muscle Shoals Library of TVA. I think there are 57 little TVAs created around the world. Most of them were created by Mr. David E. Lilienthal and helped him make himself a multi, multi-millionaire. I mean multi-multi.

DR. CRAWFORD: You mean through consultation after re-
tirement from TVA?

MR. CALDWELL: He didn't retire from TVA, he was transferred from TVA to be first chairman of the AEC and then he had one big government assignment. He fed himself with government assignments and contracts. The biggest customer he ever had was the Shah of Iran. Conducted that terrible mess over there and kept him from reforming faster cause he thought he could get by with reforming slower.

DR. CRAWFORD: Now that was the Development Resources Corporation?

MR. CALDWELL: Yes sir. And then an offshoot of that called Defense Minerals Corporation.

THIS IS A PROJECT OF THE ORAL HISTORY RESEARCH OFFICE OF MEMPHIS STATE UNIVERSITY. THIS PROJECT IS "AN ORAL HISTORY OF THE TENNESSEE VALLEY AUTHORITY." THE INTERVIEW IS WITH MR. NAT CALDWELL. THE PLACE IS GALLATIN, TENNESSEE. THE DATE IS SEPTEMBER 30, 1979. THE INTERVIEW IS BY DR. CHARLES W. CRAWFORD, DIRECTOR OF THE ORAL HISTORY RESEARCH OFFICE OF MEMPHIS STATE UNIVERSITY. TRANSCRIBED BY BETTY WILLIAMS. INTERVIEW # II.

MR. CALDWELL: I have heard Dr. Morgan in bull sessions at Norris, with his visitors. He never did have the strong American conviction of that period that economies of scale were all that are probable or possible without dehumanizing the race of people you were going to develop.

DR. CRAWFORD: This was Arthur Morgan?

MR. CALDWELL: Yes, this was Arthur Morgan. His wife was like Mrs. Roosevelt--a damn strong-minded woman herself. Yes sir, and a very handsome woman. The boys are all of them in different qualities. I think he had three sons. He was a powerful old man. He came down here just two years ago or maybe three at the most and had to be in that Cherokee Indian problem over there on the border of North Carolina and Tennessee and had some strong interviews to give about the Tellico Dam situation; Dave Lilienthal made a visit about the same time for Red Wagner's benefit to take the other



side of the fence. It was just as obvious as anything in the world.

DR. CRAWFORD: So the contention was renewed in the 1970's?

MR. CALDWELL: Oh sure, on Tellico. He took some bright young politician up there--took him back to his summer home. He had a home at Antioch. He took him back to Antioch with him and I think put him in school up there. I interviewed the kid after he had talked to Morgan and his mind was just as clear and he knew just where he was. You see, Arthur Morgan was a social philosopher, a social reformer, an absolutely elegant engineer. Arthur Morgan Associates in Memphis worked out the design for the Willow Mats--that was the nearest and best thing that was ever done for the kind of flood conditions and bank erosions that they had on the Mississippi River--and it involved using a local material and local labor that would be seasonal labor, to make the willow mats when they weren't doing something else.

DR. CRAWFORD: Even the Corps of Engineers ended up using them.

MR. CALDWELL: Of course they did and the first contracts were let to Arthur Morgan and Associates.

The local partner of Arthur Morgan and Associates was Thomas H. Allen who was later to be Thomas H. Allen & Engineers and old man Crump's very close political friend. Thomas H. Allen Steam Plant in Memphis. He was the one that in the Dixon-Yates days led the fight to break away from TVA. Crump nor McKellar had any use at all for Lilienthal because he out-politicked them at just every turn.

DR. CRAWFORD: Was that why Crump and McKellar did not

like Lilienthal?

MR. CALDWELL: He had his lessons so well studied. Arthur Morgan, Sr., was as precise as he could be in his engineering design and he's written some books on engineering theory. I expect you can find some of them in the library in the Engineering School in Memphis. He did two of the first big dams for Russia and they are still models of all of the dams that have ever been built.

DR. CRAWFORD: Arthur Morgan did?

MR. CALDWELL: Yeah. Sure. And he built the first reverse cycle turbines. That is building a reservoir at the foot of the mountain, pumping the water back up to a reservoir on top of the mountain. At night when power is very cheap, you see the variations of operating a big power system like TVA. Between peak and second peak costs of electricity and complete off peak costs of electricity is as much as two-thirds. So you can damn well afford to use electricity when you are not selling it. If you have the storage and under good conditions and good durable conduction tubes or canal or something to bring it down, a steep incline, you can use it the next day at the highest price of the day. And make a huge economy just on pumping the same water back and forth. He did one in Italy or somewhere--one of the first of those. Well, while David Lilienthal was getting forty-seven countries' contracts you know how much consulting contracts Arthur Morgan got--he got one.

DR. CRAWFORD: Which one was that?

MR. CALDWELL: It is in this book that I am going to give you. I think I said I thought it was at

home and I looked for it a minute ago when I came in and I think it is still at the office. It's one of a kind and what you need to do is to It's not a thick book. I think it is 137 pages. Just put it through the copying machine and then you will have a copy. But it's something you want to draw on if you intend to do anything about library material. What I gather by your taking this much tape on the subject you want to do besides the book itself you are going to try to assemble some TVA history somewhere.

DR. CRAWFORD: Yes.

MR. CALDWELL: And I'll tell you this of the TVA history that is in the files in Knoxville by itinerate graduate students and by people who are interested in tidying up history. Both Wessenaeur and Cap Krug. . . . Cap Krug was the first manager of power and was the architect.

DR. CRAWFORD: I interviewed Krug and Wessenaeur was unwilling to be interviewed.

MR. CALDWELL: Wes is very reticent. Wes was the planner. Both of them Germans. Krug is a devoted German businessman-engineer type. Wessenaeur is a devoted German social-philosopher-engineer type. Both of them hard headed engineers. Wes feels that in history he's going to take the blame for the decision for TVA to go nuclear. Now he has told me this. This is after the fact. Paul Evans has told me this. Both of them said if they had known, and particularly Wessenaeur, that American industry would (and this gets right back to where we were) be in the situation it has been in for the last fifteen years.

American industry has been losing all of the technical competence that it had. I mean that.

DR. CRAWFORD: When they have to send the parts back to Japan to be repaired

MR. CALDWELL: You can prove it over and over again. We can safely use nuclear power in this country, but we cannot use nuclear power safely in this country when you've got a work force--I have seen in Cumberland City and you can see during the construction of the Hartsville Nuclear plant up here, such extreme hostility. I mean not on in a strike period or anything like that, such absolute hatred of

DR. CRAWFORD: Of management?

MR. CALDWELL: Management and labor. Yes sir. And management and labor where the factory was supposed to send in its own technical experts and engineers and the top technical workers, but it's a wonder that they don't have advance blow-ups in every nuclear plant in the country. And then the powerhouse operator now is a union man whether he worked for a private power company of TVA or whether he works anywhere else. And what is he interested in doing? He's interested in keeping his own skin from being blown up, but G-- D--- if he can find the chance to embarrass management over the long haul, and you get habituated to the dangers of the thing and if you get engrossed in the project--well, how in the hell is it safe for anybody to have nuclear power in the United States if they are going to do it that way.

DR. CRAWFORD: You mean the quality of work is not depend-

able now?

MR. CALDWELL: The quality of work--and the quality of operation is just as bad.

DR. CRAWFORD: In nuclear power it apparently requires very careful supervision.

MR. CALDWELL: That business of that candle being--that was a deliberate thing!

DR. CRAWFORD: Now which one was that?

MR. CALDWELL: Down there at Browns Ferry. That was sabotage! That was for one thing to ---- up.

DR. CRAWFORD: And the result was they were years behind, weren't they?

MR. CALDWELL: Of course they were. They had all the delays they had and somebody brought a candle and it burned up a control system down there. Now that wasn't years behind but it slowed them down another nine months. God knows. And Wessenaer feels like he has the blame for making---he feels like that Red Wagner listened to him. Red is a pretty good engineer himself and he did take the bit between his teeth and decide that it was going to all be nuclear. There was none of the philosopher in Red Wagner. Red Wagner was almost a straight businessman type who had a rather pleasant disposition. He and I never got along, but that was because I rode him when he was about a third assistant to the TVA general manager. One of my long suits was TVA's -- Arthur and H. A. Morgan's--elected soil conservation responsibilities. I knew we had a loose soil. I knew the farmers were most of them "red necks" and were not

The commercial types that you encounter in the mid-west and had nothing like the education that you had in the mid-west. They were dealing with the soil because of the availability of -- long after it was available in the rest of the country or ceased to be available in the rest of the country. TVA's low-cost fertilizer, huge amounts of it, were distributed here and the private fertilizer companies cut their prices to make it sell cheaply. That meant we were going to have in good years a quick-planted, very heavy yielding crop. That, if it got harvested late or planted late, was going to lay waste a whole region, regardless of how profitably the crop was taken out--it was going to waste more soil!

And in the land where you live in West Tennessee, for God's sake, it was on 2,900,000 acres of low crop land. You are losing over there from 30 to 40 tons per year! And no region can afford to do that. When I was first writing about TVA, the other big thing that was attracting the attention in conservation and what all of us thought about TVA under Harcourt and Arthur Morgan was as a soil conservation plan, an agriculture reform, a reforestation of a thing like that.

Then came what Lilienthal sold very beautifully--the reason the rural electric co-ops were created. The small municipal distribution systems were to create at what Lilienthal identified as the grass roots, (they really weren't the grass roots) the people, who were the mayor of the town and the three biggest bankers in the town even in the middle of the Depression.

DR. CRAWFORD: But they represented the community.

MR. CALDWELL: He called them the grass roots. This is grass roots democracy going to damn. And

he went with more energy than anybody you ever saw in your life to the grass roots to bring the new enlightenment. The new enlightenment was industrial jobs.

DR. CRAWFORD: And cheap power would support it.

MR. CALDWELL: Of course cheap power would, and he intended, there was no question in his mind when he built every then economic main stream power site, he intended to go to steam from coal. Without any question, that was clear. Everybody had that firmly fixed in their minds.

DR. CRAWFORD: How early do you suppose were they looking that far ahead?

MR. CALDWELL: Oh, I don't think that Lilienthal had been there for more than five years until he saw industrial development. Now if you remember, Dave was responsible, not the two Morgans. You'd think Harcourt Morgan or George Norris would have been [in] the one that led TVA all of the work on the lawsuit that finally won. They'd been trips to the Supreme Court over the years on freight-rate discrimination ----class freight-rate structure----against the South, which was one of the really powerful historic drawbacks to southern economic development. Lilienthal knew this----that American industry was going into a huge stage of expansion. He knew that if TVA itself went aggressively union and made this link-up with local grass roots leadership through boards of municipal power systems. These boards were never elected city councilmen, except in the very rarest cases. They were either rural electric co-op boards or they were appointed by the mayor with careful consultation. When he got his first

power board in Nashville it was composed of a little bit more politicians than businessmen out of our mayor that Mr. Evans controlled. Tom Cummins, the publisher of The Tennessean controlled him. E.K. made [a] trip to Nashville and said, "Silliman, that won't do." "Tom Cummins has appointed [these people. . .]. Their answer (what I said would be the specs): one of them is a grain broker, and one of them is the real estate man and investment banker, but he said, "Every G-- d--- one are up to their a-- in politics and I don't want that." I want some people who can be . ." What he meant is a plaque for TVA on down through the years and who there will be no kick from the financial community or the business community if they do a good clean job. If they are reappointed for thirty years he said, "I want to be giving them gold star pins for 40 years service on a power board or a rural electric co-op board."

DR. CRAWFORD: Who said this?

MR. CALDWELL: Lilienthal, and that is what he wanted.

The reason he got the freight-rate case started, and it was worked up entirely by TVA and won by TVA--and they got the Federal Courts to bring them in as a party--was not what you would have thought that would have been with George Norris having his historic gripe against the fertilizer companies for shipping dirt all around the country and charging farmers freight on it; or even the agriculturist, Harcourt Morgan, or the social reformer or Arthur Morgan but Dave Lilienthal thinking about one thing--industrial development. TVA got the name of it and did a beautiful job of recruiting industry. Now the industry that they got was the highly automated industry or the minerals refining, or heavy indus-

trial chemical producing industry, that used electricity practically as a raw material. If you want to make aluminum--my God, 22% of your cost going into your aluminum is electricity and at periods it has been as high as 28 and 31% of your gross cost--that is, your bill for electricity. Anyhow we got all of that industry. That meant high-pay industry and that meant union industry and that meant David Lilienthal was already paying his construction workers of TVA going away the highest pay of any contractor or governmental agency or anybody else in the building trades. That was the union that you used in TVA. The whole South and the wage scale was the first time that the North-South differentials--there weren't any North-South.

If you were working a contractor's closed construction job in New Hampshire or in the far west where union organizations were damn strong at that time and could get a job in TVA you knew you weren't going to take any pay cut if you moved down to the deep South to Mississippi. On a TVA construction job you were going right in at what was the prevailing journeyman's wage at the highest wage definition in the country. And TVA reserved to the board to pass on those wage deals. You got going away I'd say the first twenty years of TVA, the fastest even with the impetus that Florida had, the impetus that Arizona and Texas had, out of which came the petro-chemical industry that Louisiana had. You got, without any doubt in the world the fastest employment in heavy industry of any of the Southern states. And it was done in a situation that was almost a miracle without any [of the] electricals. We were the biggest consumers of all kinds of electrical equipment in the United States without any steel, and without any automobiles. We missed all of those because the private power companies were able to fence them out.

I drew lots of maps up and Lilienthal would make speeches and I would get after Westinghouse and G E and they wouldn't put a plant down here for anything in the world because private power companies didn't want them to and they pretended like they didn't have the big customers here. Finally, Wessenauer and Joe Swidler under Eisenhower, got together an anti-trust lawsuit for price fixing----a criminal anti-trust lawsuit----that they talked Eisenhower's Attorney General into accepting and then they convicted them, all of the big electrical suppliers, of criminal anti-trust and the judge sentenced them to five days, ten days, two days----something like that----in jail, but it paved the way for about \$350 or \$360 million of civil anti-trust lawsuits. The customers of the private power companies had to sue just like everybody else. Lilienthal "mamaed" that thing without any question.

DR. CRAWFORD: Well, Lilienthal's view of the economy of the area turned out to be right as far as industrial development.

MR. CALDWELL: No question about that! No question about that! He never had any zeal for racial reform which some of his followers did----Wessenauer, Joe Swidler, now a private lawyer and a rich private lawyer. All of the early TVA lawyers, there's no question about them----social and race reform minded----but Lilienthal wanted business to grow. Now he, in identity always kept with the Democratic Party (was as a left of center), contributed to senatorial campaigns and other things. Lilienthal became as quick a money maker as anybody ever became in shifting out of government employment.

DR. CRAWFORD: When he set up that Development Corporation?

MR. CALDWELL: Oh yes. I expect, he spun off to Kuhn Loeb and Company, his minerals company that he bought with profits and accepted lots of fees from countries that had lots of minerals to be developed with the cheap electricity that were the guts of every one of his plans.

DR. CRAWFORD: What was that called? Defense Minerals?

MR. CALDWELL: Defense Minerals, I believe. When he sold that damn thing to Kuhn Loeb and Company. And I believe that's where----it could have been Lehman Brothers, but I'm pretty sure it was Kuhn Loeb and Company---his personal share of that was something like \$83 million dollars.

DR. CRAWFORD: Well, that's more than one makes working for the government!

MR. CALDWELL: And the commissions that they took out of the Shah of Iran and a whole lot of stock options for oil companies and things like that in there was way up over. And the reason I know that----I've never printed that, I don't think anybody else has printed it---Mr. Lilienthal at various times has acknowledged that he is a very, very rich man. The reason I have never printed it is because there is just no way You can't look at a man's income tax returns and [know] he doesn't live on any such ostentatious scale.

DR. CRAWFORD: I've been to his home in Princeton.

MR. CALDWELL: The reason I know that he is that rich is because his son told me that when he fell out with him. If you read Six Book Sun Merchant of the St. Louis Post

Dispatch and a hell of a nice guy and was left. I stayed left.

When I was invited up to the Neiman Fellowship at Harvard for my trip back as a Neiman dinner guest----I was one of the few famous reporters that has been back twice----I flatly said that I thought that in many ways at the theory that the Village Voice, the East Village and the Rolling Stone were doing a better job in their field than the New York Times was in its field, which was the most logical conclusion. Of course, that made me the one to leave that I did it, which was a piece of demagoguery cause I knew that there were fewer newspaper publishers there that night and most of the Neiman fellows were drunk and all of the Crimson's editors were there and whatever the Yale paper was, I've forgotten, were there. (Laughter) I did it partly for meanness, but I felt that way. That was back in the early sixties.

DR. CRAWFORD: That was reported I suppose? Your speech
was reported, I suppose?

MR. CALDWELL: No, they left it out in the reports. Louis Lyons said my speech didn't deserve the dignity. Now they did do this. They extrapolated my discussion of what was called the Banner-Tennessean Syndrome.

DR. CRAWFORD: What was that?

MR. CALDWELL: That was the long dramatic warfare between Jimmy Stahlman and Silliman Evans. The political warfare that went on in Tennessee politics when they were equal 50-50 partners in the Nashville Banner and the Nashville Tennessean profits in the NPC. My contention was that if somehow that the knock-down drag-out

rivalries between the New York World and the New York Times and the Herald Trib and the other, the Evening Journal, and Hearst and the Mirror and the News gave way to totally objective reporting, which took an awful lot of thunder and the drama, that the skids were greased in the direction of television anyhow. Now, they did put that part of that speech in the Neiman report. Somebody took a tape of the whole thing, but Louis Lyons omitted all of my observations of that evening on journalism. Now, they did do this a few years earlier when I talked to them on TVA--well, they gave it a big play in the Neiman Report.

I personally feel that in retrospect that these boards of the municipal power systems--power boards and the elected boards of the rural electric coops--if you want to get busy and beat 'em, then you can get busy and beat 'em, but it is usually a bunch of politically savvy managers of the coops. And they are skillful men and they are all paid well. They make a good deal better pay than the average state manager of a small electric power company--anything that size.

DR. CRAWFORD: And they are organized.

MR. CALDWELL: And they are well organized. Dave Freeman and Richard Freeman today with Himmy Carter's political policy, until lately, being very strongly pro-environmental--very strongly anti-Columbia Dam, being very strongly anti-Tellico Dam, very strongly anti-Tennessee-Tom Bigbee--that the local power systems and their grip upon all of the Tennessee Valley's congressional delegation, plus their close association with the employees of TVA, means that they can reverse the two Freeman's decisions. That's why Bob Clement is perfectly free if he wants to he can dissent with them, he can vote with them, vote against them, do anything and make himself immensely popular with really strong TVA instru-

mentality here, which is the board of those organisms. The Tennessee Rural Electric Coops Association is gonna have its annual meeting October 21st here and the man that is going to be heard. Usually you invite all three of the TVA Board members to be heard on different days. Neither Freeman is gonna be here. Bobby Clement is going to be here to make the speech, and if he wants pressures put and Jimmy is running hard for re-election now and he's not going to take up for his favorite Jewish boy, S. David Freeman. He's gonna do what Bobby Clement and what the coop managers want. Because why? Because they can talk to B. Huddleson. They can talk to John Young Brown, I think he won over the Republican in Kentucky, to former Governor Ford, to Jimmy Sasser, to every member of the congressional delegation.

Boxing the compass when you got that much seniority as there is in both houses of the Congress--in Tennessee, Kentucky, Alabama and Mississippi--it's the way they keep their men in office. What Lilienthal intended to do is sink his ideology for TVA firmly into the ground. The appendages that he developed and nourished to ratify his opinions are stronger than any Board that the President of the United States can appoint today. It has that kind of acceptance. It is the only government agency like that, that I have ever seen except the Federal Reserve Board. The Banker, the butcher, the candle stick-maker accepts it totally because it is the spokesman for big business on nine-tenths of things. I mean exactly the opposite of what George Norris had in mind. Exactly the opposite of what both Harcourt and Arthur Morgan had in mind. It gutted most of its conservation programs. I



think Dave Freeman intends very sincerely to move back into the soil conservation thing this time. But, I think that remains to be seen. There's been a huge discovery in West Tennessee of very highly valuable minerals. Now, The Commercial Appeal has written very little because I got on the story earlier on in an interview with the President of Phillip's Coal Corporation, which is a subsidiary of Phillips Petroleum. They have confirmed my early stories. I did a good deal of speculation. They've got about, in West Tennessee, way over 500,000 acres of leases of real high quality lignite.

DR. CRAWFORD: Mineral rights?

MR. CALDWELL: That is from 300 to 350 feet under the ground. It ranges from five to eight and a half or nine feet in thickness of the seam. It has a dried weight analysis of .4 sulphur. See, there ain't a dang thing the EPA can do to you. Period. When you burn that, what can they say! You come out with less sulphur than you do when you burn the average grade of petroleum or the average grade of natural gas.

DR. CRAWFORD: What counties are involved in that?

MR. CALDWELL: The entire Hatchie River Bottoms--the biggest, richest depositor--and we are going to see Tennessee scandal history made and you watch. Ray Blanton sat there and told me that the last week he was in office . . . I always liked old Blanton. . . He was a populist. He was a boodler, but no more a boodler than anybody else I knew and he had a crooked daddy and he had a crooked brother.

DR. CRAWFORD: We've had a long tradition of that sort of



thing.

MR. CALDWELL:

I would say that Bob Clement was so much more intelligent than Leonard Blanton at stealing. Right now it's going [to be] the transfer of farms that old man Clement owns in gifts and Court House records across Middle Tennessee that's going on. I understand that it amounts to five or six million dollars a year worth of land. See, what to save taxes he's having to give that to them in installments in advance of death. Of course, nobody thinks. . . . Dad's an honorable man, but little Bobby won't have to be financed in his next race for governor. Granddaddy's land has . . . and he put it all in farm land. And of course, there's been a sizable inflation in farm land. Blanton told me that his brother, Gene, was offered half a million dollars by Phillips Petroleum for the lease. There the state and Blanton had to have some business sense. He agreed to let them drill. They thought from their (What is the geo-physical exploration they did?) that it was pretty close to the surface and you could do an awful good job. He let him drill 42 core holes in Fort Pillow Prison Farm. Just imagine how broke the state prison system is. Everyone of those holes showed . . . (tape ran out) Of course, they drilled about 800 core drill holes in other parts of West Tennessee.

DR. CRAWFORD:

Now the state did not get any leases?

MR. CALDWELL:

No leases! That's right! Their chief geologist got up to the Southwestern Petroleum Geologist Society and read the paper last November in which he said that there was , at least in Southwest Tennessee and extending all

the way up to Reelfoot Lake, a little lower quality. That means a little lower sulphur. Now, a little lower sulphur at the top means .6 . So, again you're talking about no sulphur at all. You are equating what TVA considers a conservation-sulphur content in coal. Environmental protecting content is 1.1 percent sulphur. The low that belongs to the state of Tennessee is .4 . All right, this is in the flood plain of the Mississippi River. They can strip mine that thing with convict labor using heavy machinery and pay those people a good wage and they won't have to back-fill that land. The Mississippi River will back-fill that land at least every third year and it will fill in to whatever level it was before or there will be the leaching effect where the river changes the structure of its bed. Everything is going to be just as rich or just as poor as it would have been any other way because nature----it's all in the flood plain of the river.

DR. CRAWFORD: How deep is this coal?

MR. CALDWELL: 300.

DR. CRAWFORD: And that is close enough for strip mining?

MR. CALDWELL: It wasn't ten years ago, but it is now.

It's economic as hell now to strip mine lignite. It's going to upset all of TVA's plans to spend that extra fifteen billion dollars that they are talking about now, that they will probably get because the power system managers want an authorization. And there'll be enough pressure from congressional delegation to get it instead of that being all nuclear. There's enough under land owned by the state of Tennessee to run two generators as big as the Hartsville generators----that's 1.3 million kilowatt hours (I mean in kilowatt capacity) for fifty

years.

DR. CRAWFORD: You think this will be developed soon?

MR. CALDWELL: I don't know when it will be developed.

But what I do think is the biggest pressure ----every high percentage boy in the Republican Party in Memphis and certainly Ted Welch here in Nashville----is going to be offered fees to get Lamar Alexander to give a lease. You know that, don't you?

DR. CRAWFORD: Does the General Assembly know it also?

MR. CALDWELL: The General Assembly is just beginning to realize [it]. Why The Commercial Appeal is not printing that story I don't know. They have had it on the front page twice. I have had it on front page about six times. The Press-Scimitar used a little wire story and scooped me when the guy read his piece to the Southwestern Petroleum and Geologist Society.

DR. CRAWFORD: I think I remember that one.

MR. CALDWELL: They put it on front page one time, but there is a dramatic veering away now that they have found lignite deposits in Arkansas, in the flood plain in Mississippi, and other places. The real low sulphur is present there----the real low sulphur is in West Tennessee.

To complicate this West Tennessee situation is another thing that has been publicized by nobody over the last fifty years except the reporter you are looking at and it damn sparingly because I had to pick up and go to Norris each time. One of the fancies of both Harcourt and Arthur was that they knew that the big timber companies would go very heavily into developing

both hybrid species and super tree species--the pine.

DR. CRAWFORD:

I know Arthur Morgan speculated a good bit on that.

MR. CALDWELL:

Now, he gave orders to TVA's forestry and wild life division to do the same thing with hard woods. You don't do anything like that very spectacularly with four of the finest timber geneticists in the world. They went to work in this country and other countries looking for buddables that would bud into our native stocks----white oak, red oak, yellow poplar, hickory, walnut, and wild cherry. That is particularly important because the species----the super tree that they have developed----is now at last at the seeding stage in quantities. See, the offspring that they have had. . . . What they have tested their produce that has been on butting the buds of these fine trees onto local native stocks that was maybe five, six, or seven, eight, ten----as old as the given species. Some trees you can bud up till the tree is twenty years old and then cut the old top out of the tree and the new bud take over and go. Some you have to do by the time they are three years old. Some you do by the time they are five. They have never had more than four or five hundred of these budded trees to distribute around among the big timber companies and the schools of forestry in the state universities of the South. But next year they are going to have because they are seeds now. Then they've got some trees that are twenty, twenty-five, thirty years old that are of all of that stock. They are going to have for the first time supplies of 150,000 or 200,000 trees and it will make all the difference in the world if those trees should go.

DR. CRAWFORD: You mean that will increase the timber yield
 of the area?

MR. CALDWELL: And the wild life possibilities. What we
 are doing in the Southeast, Charlie, we
are converting our forests from slower growing hardwoods which nourish the
wild life. You don't see fat squirrels and damn few rabbits and almost no
deer in a pine forest in Georgia and South Carolina. Where the deer are,
where all of the wild life, small and large and quail and everything is,
is in hardwood forests. And most of our land in the South except coastal
lands were not in native pine lands. They were hardwood lands. TVA's got
everything from a gum. They weren't very successful with their red oak,
but they were extremely successful with their post oak and their saw-tooth
oak and their white oak. Their trees that they selected too was a tree that
could be fertilized into a crop tree and maturity time had been cut as much
as----when you are talking about a tree that reaches good timber-top timber
sale age at sixty-five years and you cut that to forty years, and it is a
walnut and a wild cherry. You know what? The antique dealers cut the
thickness of the veneer of either wild cherry or walnut can now go down to
a sixty-fourth of an inch. You're talking about from the stump of an in-
ferior tree twenty-five hundred dollars to ten thousand dollars a tree.
Forty of them on an acre and you have a temptation for a farmer in West
Tennessee who says, "well, I want to tell you something. I don't want to
fool with that big mulch-n-row machinery and equipment. This is good cherry
land, this is good walnut land. I want to put my land down in that and I,
taxwise and every otherwise, I'll be better off and I won't have anything

near the cost and I have planted about 50 walnuts and 50 wild cherries per acre thinned down to forty. And then what am I going to take out? Or, what is my grandson going to take out?"

DR. CRAWFORD: That will change things.

MR. CALDWELL: That will change from a row crop land, particularly West Tennessee which is all hardwood and little pine country after the devastation of Southwest Tennessee and the washouts and the erosion of everything. Of course, Natchez Trace State Park over there just has turned into a pine forest. And the state forestry department has set still for it. Anyhow, that was supposed to be one of TVA's functions. I am not doing any more investigative jobs on TVA, but Tom, the general manager of wild life who is an awful nice man, was brought here with the idea that TVA continue that piece of research. And when they brought it to a head and made the final observations the first two or three years seedling crops, which would be 150,000 or 200,000 seedlings, would go to the big timber countries in the South that were interested. And all of a sudden they pass the highly improved species of something from the public domain to the private domain. From TVA the only experience, one of the first things they did in fruit trees when they came South, one of the first forestries put in, was to invent, improve, hybridise, a very heavy yielding walnut. Now this was not a superior lumber tree, but a very heavy yielder. And what they did, they distributed that tree and a nurseryman, and a Virginian, named Thomas took that tree. TVA didn't do like it does. It takes an open patent on fertilizer. It never took a plant patent. Nobody's ever patented any trees except fruit trees.

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The name of that walnut is the Thomas Walnut today.

DR. CRAWFORD: That TVA developed it?

MR. CALDWELL: Yes, sure it did.

DR. CRAWFORD: Do you think they will take a patent on
their new development?

MR. CALDWELL: They hadn't. I'm gonna try to make them.

DR. CRAWFORD: Do you think it will be available to the
public rather than to companies?

MR. CALDWELL: I think the plan was, Red's plan was, to
get out of it, turn it over. I know this

----that they promoted out of genetics work completely the four best tree
geneticists, offered them pay inducements. The other two that were left in
their tree genetics had been something that they don't enjoy---trying to
develop superior shrub varieties or planting them in strip-mine areas.

They are sore about it.

1. The first part of the book is devoted to a general introduction to the subject of the history of the English language.	1-10
2. The second part of the book is devoted to a detailed study of the history of the English language from the 15th to the 18th century.	11-100
3. The third part of the book is devoted to a detailed study of the history of the English language from the 18th to the 19th century.	101-200
4. The fourth part of the book is devoted to a detailed study of the history of the English language from the 19th to the 20th century.	201-300
5. The fifth part of the book is devoted to a detailed study of the history of the English language from the 20th to the present.	301-400
6. The sixth part of the book is devoted to a detailed study of the history of the English language from the present to the future.	401-500
7. The seventh part of the book is devoted to a detailed study of the history of the English language from the future to the end of the world.	501-600
8. The eighth part of the book is devoted to a detailed study of the history of the English language from the end of the world to the beginning of the next world.	601-700
9. The ninth part of the book is devoted to a detailed study of the history of the English language from the beginning of the next world to the end of the next world.	701-800
10. The tenth part of the book is devoted to a detailed study of the history of the English language from the end of the next world to the beginning of the next world.	801-900
11. The eleventh part of the book is devoted to a detailed study of the history of the English language from the beginning of the next world to the end of the next world.	901-1000

